

1 **Listing of the Claims**

2 **In the Claims:**

3 No amendments to the claims have been made. A copy of the claims as filed are listed below  
4 for the Examiner's convenience.

5 1. (Original) A method of migrating at least one client to a selected version of a  
6 server-hosted application on a network, where multiple versions of the server-hosted application are  
7 available on the network, such that direction of a client to use a specific version may be transparent to  
8 a client, comprising the steps of:

- 9 (a) installing the multiple versions of the server-hosted application on the network;  
10 (b) creating a register identifying clients having access to the server-hosted  
11 application and indicating in the register a version of the server-hosted application that is associated  
12 with each client having access to the server-hosted application;  
13 (c) changing an association in the register of at least one client selected from those  
14 clients identified in the register to a different version of the server-hosted application; and  
15 (d) directing each client attempting to access the server-hosted application to the  
16 version of the server-hosted application with which the client is associated in the register, without  
17 requiring that any client be aware of the migration to the different version.

18 2. (Original) The method of Claim 1, wherein the register comprises meta information for  
19 each client.

20 3. (Original) The method of Claim 2, wherein the meta information for each client includes a  
21 status of the client and a version identifier that indicates the version of the server-hosted application  
22 associated with the client.

23 4. (Original) The method of Claim 3, wherein the meta information further comprises a  
24 location from where server-hosted application data of a client can be retrieved.

25 5. (Original) The method of Claim 1, further comprising the step of grouping together  
26 version specific server-hosted application data into different data structures, such that at least one  
27 data structure exists for each version of the hosted application, and each at least one data structure  
28 includes version specific server-hosted application data unique to only one version of the hosted  
29 application.  
30

1           6. (Original) The method of Claim 1, further comprising the step of grouping together non  
2 version specific server-hosted application data into a single data structure.

3           7. (Original) The method of Claim 1, further comprising the step of grouping together client  
4 specific server-hosted application data into different data structures based on the version of the hosted  
5 application that is associated with the client specific server-hosted application data, so that a different  
6 client data structure exists for each version of the server-hosted application.

7           8. (Original) The method of Claim 1, wherein the register comprises a separate data  
8 structure.

9           9. (Original) The method of Claim 1, wherein the step of directing each client attempting to  
10 access the server-hosted application to the version of the server-hosted application associated with the  
11 client comprises the step of examining a request from each client for access to the server-hosted  
12 application to determine if the request contains a reference to the version of the server-hosted  
13 application with which the client making the request is associated.

14           10. (Original) The method of Claim 9, wherein when a request from a client does not include  
15 a reference to the version of the server-hosted application to which the client should be directed,  
16 further comprising the step of incorporating a reference to the version of the server-hosted application  
17 to which the client should be directed in a cookie returned to the client from the server, such that  
18 when the client makes a future request, the register does not need to be consulted to determine the  
19 version of the server-hosted application to which the client should be directed.

20           11. (Original) The method of Claim 1, further comprising the step of examining a request  
21 from a client for access to the server-hosted application to determine if the request contains a  
22 reference to the version of the server-hosted application to which the client should be directed, before  
23 consulting the register to determine the version of the server-hosted application to which the client is  
24 to be directed.

25           12. (Original) The method of Claim 11, wherein when a request from a client does not  
26 include a reference to the version of the server-hosted application to which the client should be  
27 directed, further comprising the step of incorporating a reference to the version of the server-hosted  
28 application to which the client should be directed in a cookie returned to the client from the server,  
29 such that when the client makes a future request, the register does not need to be consulted to  
30 determine to which version of the server-hosted application the client should be directed.

1           13. (Original) The method of Claim 1, wherein when a client attempts to access the  
2 server-hosted application and is not identified in the register, further comprising the steps of  
3 associating the client with a default version of the server-hosted application; and, adding information  
4 identifying the client as being associated with the default version, to the register.

5           14. (Original) The method of Claim 13, further comprising the step of incorporating a  
6 reference to the default version of the server-hosted application in a cookie returned to the client from  
7 the server, such that when that client makes a future request, the register does not need to be  
8 consulted to determine to which version of the server-hosted application the client should be directed.

9           15. (Original) The method of Claim 1, wherein when a client attempts to access the  
10 server-hosted application, and the request from the client includes a reference to the version of the  
11 server-hosted application to which the unique client should be directed, but that reference fails to  
12 define a version of the server-hosted application with which data of the client are associated, further  
13 comprising the step of consulting the register to determine to which version of the server-hosted  
14 application the client should be directed.

15           16. (Original) The method of Claim 15, further comprising the steps of changing the  
16 reference to the version of the server-hosted application contained in the request cookie to correspond  
17 with the version of the server-hosted application identified by the register, and returning the cookie  
18 that is thus corrected to the client, so that when the client makes a future request, the future request  
19 will properly reference the version of the server-hosted application with which the client is  
20 associated.

21           17. (Original) A machine-readable medium having machine instructions for performing the  
22 steps of Claim 1.

23           18. (Original) A system for migrating at least a portion of a plurality of clients to a selected  
24 version of a server-hosted application on a network to which the plurality of clients is coupled, where  
25 multiple versions of the server-hosted application are available on the network, such that direction of  
26 a client to use a specific version of the server-hosted application may be transparent to a user,  
27 comprising:

28                   (a) a computing device for each client coupled to the network; and  
29  
30

1 (b) a server having a processor and a memory in communication with the  
2 processor, said memory storing machine instructions that when executed by the processor, cause the  
3 processor to:

4 (i) install the multiple versions of the server-hosted application for access  
5 over the network;

6 (ii) create a register identifying the plurality of clients having access to the  
7 server-hosted application and including an association of a version of the server-hosted application  
8 with each client having access to the server-hosted application;

9 (iii) change an association in the register of a first group of clients selected  
10 from the plurality of clients, to a different version of the server-hosted application; and

11 (iv) direct each client attempting to access the server-hosted application to  
12 the version of the server-hosted application with which the client is associated in the register, without  
13 requiring that a user of any client be aware of the migration to the different version.

14 19. (Original) The system of Claim 18, wherein the machine instructions, when executed by  
15 the processor, further cause the processor to direct each client attempting to access the server-hosted  
16 application to the version of the server-hosted application with which the client is associated, by  
17 consulting the register to determine the version of the server-hosted application to which the client  
18 should be directed.

19 20. (Original) The system of Claim 18, wherein the machine instructions, when executed by  
20 the processor, further cause the processor to direct each client attempting to access the server-hosted  
21 application to the version of the server-hosted application with which the client is associated, by  
22 examining a request from each client to the server to determine if the request contains a reference to  
23 the version of the server-hosted application to which the client should be directed.

24 21. (Original) The system of Claim 20, wherein when the request does not include a  
25 reference to the version of the server-hosted application to which the client should be directed, the  
26 machine instructions cause the processor to identify the version of the server-hosted application to  
27 which the client should be directed, by consulting the register.

28 22. (Original) The system of Claim 21, wherein when the request does not include a  
29 reference to the version of the server-hosted application to which the client should be directed, the  
30 machine instructions further cause the processor to incorporate a reference to the version of the

1 server-hosted application to which the unique client should be directed in a cookie returned to the  
2 client from the server, such that when the client makes a future request, the register does not need to  
3 be consulted to determine to which version of the server-hosted application the client should be  
4 directed.

5 23. (Original) The system of Claim 18, wherein when a client attempts to access the  
6 server-hosted application, and the client is not identified in the register, the machine instructions  
7 further cause the processor to associate the client with a default version of the server-hosted  
8 application, and add the client in association with the default version, to the register.

9 24. (Original) A method of enabling multiple versions of a server-hosted application to be  
10 provided to a network, such that a client requesting to access the server-hosted application is not  
11 required to affirmatively select a specific version of the server-hosted application to be accessed,  
12 comprising the steps of:

13 (a) enabling the multiple versions of the server-hosted application to be accessible  
14 to the network;

15 (b) creating a register identifying each client having access to the server-hosted  
16 application, and including an association of each client with one version of the server-hosted  
17 application that the client is allowed to access;

18 (c) each time a client attempts to access the server-hosted application,  
19 automatically identifying the version of the server-hosted application that said client is allowed to  
20 access; and

21 (d) automatically directing said client to the version of the server-hosted  
22 application that said client is allowed to access.

23 25. (Original) The method of Claim 24, wherein the register comprises meta information for  
24 each client, said meta information including at least a status of a client and a version identifier that  
25 identifies the version of the server-hosted application that a client is allowed to access.

26 26. (Original) The method of Claim 24, wherein the step of automatically identifying the  
27 version of the server-hosted application that said client is allowed to access comprises the step of  
28 consulting the register to determine the version of the server-hosted application that said client is  
29 allowed to access.  
30

1           27. (Original) The method of Claim 24, wherein the step of automatically identifying the  
2 version of the server-hosted application that said unique client is allowed to access comprises the step  
3 of examining a request from said client to the server to determine if the request contains a reference  
4 to the version of the server-hosted application that said client is allowed to access.

5           28. (Original) The method of Claim 27, wherein when the request includes a reference to the  
6 version of the server-hosted application that said client is allowed to access, but the reference fails to  
7 define a version of the server-hosted application with which data of said client is associated, the step  
8 of automatically identifying the version of the server-hosted application that said client is allowed to  
9 access further comprises the step of consulting the register to determine the version of the  
10 server-hosted application that said client is allowed to access.

11           29. (Original) The method of Claim 28, further comprising the step of incorporating a  
12 reference to the version of the server-hosted application that said client is allowed to access in a  
13 cookie returned to said client from the server, such that when said client makes a future request, the  
14 version referenced in the future request is correct.

15           30. (Original) The method of Claim 27, wherein when the request does not include a  
16 reference to the version of the server-hosted application that said client is allowed to access, the step  
17 of automatically identifying the version of the server-hosted application that said client is allowed to  
18 access further comprises the step of consulting the register to determine the version of the  
19 server-hosted application that said client is allowed to access.

20           31. (Original) The method of Claim 27, wherein when the request does not include a  
21 reference to the version of the server-hosted application that said client is allowed to access, further  
22 comprising the step of incorporating a reference to the version of the server-hosted application that  
23 said client is allowed to access in a cookie returned to said client from the server, such that when said  
24 client makes a future request, the register does not need to be consulted to determine the version of  
25 the server-hosted application said client is allowed to access.

26           32. (Original) The method of Claim 24, wherein when said client is not identified in the  
27 register, further comprising the steps of selecting a default version of the server-hosted application as  
28 the version of the server-hosted application that said unique client is allowed to access, and adding  
29 information to the register identifying said client and associating said client with the default version  
30 of the server-hosted application that said client is allowed to access.

1           33. (Original) The method of Claim 32, further comprising the step of incorporating a  
2 reference to the version of the server-hosted application that said client is allowed to access in a  
3 cookie returned to said client from the server, such that when said client makes a future request, the  
4 register does not need to be consulted to determine the version of the server-hosted application that  
5 said client is allowed to access.

6           34. (Original) A machine-readable medium having machine instructions for performing the  
7 steps of Claim 24.

8           35. (Original) A system for enabling multiple versions of a server-hosted application to be  
9 provided to a network, such that users requesting to access the server-hosted application are not  
10 required to affirmatively select a specific version, comprising:

11                 (a) a plurality of computing devices coupled in communication with the network,  
12 each computing device corresponding to a different client operated by a user; and

13                 (b) a server having a processor and a memory in communication with the  
14 processor, said memory storing machine instructions defining multiple versions of a server-hosted  
15 application, and a register identifying each client and associating the client with a version of the  
16 server-hosted application that the client is allowed to access; said memory further comprising  
17 machine instructions that when executed by the processor, in response to a request from a client to  
18 access the server-hosted application, cause the processor to:

19                         (i) automatically identify the version of the server-hosted application that  
20 said client is allowed to access by first examining a request from said client for access to the  
21 server-hosted application to determine the version said client is allowed to access, and if no version is  
22 referenced in the request, then consulting the register to determine the version said client is allowed  
23 to access; and

24                         (ii) direct said client to the version of the server-hosted application that said  
25 client is allowed to access.

26           36. (Original) A method of enabling a provider of a server-hosted application to migrate  
27 selected clients from a first version of said server-hosted application to a second version of said  
28 server-hosted application, such that at least one version of the server-hosted application remains  
29 accessible to at least some clients during the migration, comprising the steps of:  
30

1 (a) creating a register identifying each client having access to the server-hosted  
2 application, and associating each client having access to the server-hosted application with the first  
3 version of the server-hosted application;

4 (b) making the second version of the server-hosted application available on the  
5 network;

6 (c) selecting a first group of clients from those clients identified in the register to  
7 be migrated to the second version of the server-hosted application;

8 (d) changing the register so that the register indicates each client included in the  
9 first group of clients is associated with and allowed to access the second version of the server-hosted  
10 application, but not the first version of the server-hosted application;

11 (e) each time that a client attempts to access the server-hosted application,  
12 automatically identifying the version of the server-hosted application that said client is allowed to  
13 access; and

14 (f) automatically directing said client to the version of the server-hosted  
15 application that the client is allowed to access.

16 37. (Original) The method of Claim 36, wherein the register comprises meta information for  
17 each client, said meta information including at least a status of each client and a version identifier that  
18 identifies the version of the server-hosted application that the client is allowed to access.

19 38. (Original) The method of Claim 37, wherein the status comprises at least one of an active  
20 state and a being migrated state.

21 39. (Original) The method of Claim 38, wherein when data of any of the first group of  
22 clients must be reformatted to be compatible the second version of the server-hosted application, for  
23 each client in the first group of clients whose data requires reformatting, further comprising the steps  
24 of:

25 (a) modifying the register to identify the status of the client as in the being  
26 migrated state;

27 (b) reformatting the data associated of the client to be compatible with the second  
28 version of the server-hosted application; and

29 (c) when the reformatting is completed, modifying the register to identify the  
30 status of the client as in the active state.



1           40. (Original) The method of Claim 39, wherein if an error occurs in reformatting the data  
2 associated with the client; further comprising the steps of:

3                   (a)     modifying the register to identify the status of the client as in the being  
4 migrated state;

5                   (b)     reformatting the data associated of the client to be compatible with the first  
6 version of the server-hosted application; and

7                   (c)     when the reformatting is completed:

8                           (i)     modifying the register to identify the status of the client as in the active  
9 state; and

10                           (ii)    changing the register so that the register indicate the client is associated  
11 with and allowed to access the first version of the server-hosted application, but not the second  
12 version of the server-hosted application.

13           41. (Original) The method of Claim 38, further comprising the step of determining the status  
14 of each client attempting to access the server-hosted application, and if the status of the client is  
15 identified as being migrated, preventing the client from accessing the server-hosted application, until  
16 the status of the client is changed to the active state.

17           42. (Original) The method of Claim 38, further comprising the step of determining the status  
18 of each client attempting to access the server-hosted application, and if the status of the client is  
19 identified as being migrated, allowing the client only limited access to the server-hosted application,  
20 until the status of the client is changed to the active state.

21           43. (Original) The method of Claim 38, further comprising the step of determining the status  
22 of each client attempting to access the server-hosted application, and if the status of the client is  
23 identified as being migrated, allowing the client only limited access the client's data stored by the  
24 server-hosted application, until the status of the client is changed to the active state.

25           44. (Original) The method of Claim 36, further comprising the step of making the first  
26 version of the server-hosted application un-available to the network, if each client identified in the  
27 register as having access to the server-hosted application, is associated with the second version of the  
28 server-hosted application.

29           45. (Original) The method of Claim 36, wherein the step of automatically identifying the  
30 version of the server-hosted application that said client is allowed to access comprises the step of

1 consulting the register to determine the version of the server-hosted application that said client is  
2 allowed to access.

3 46. (Original) The method of Claim 36, wherein the step of automatically identifying the  
4 version of the server-hosted application that said client is allowed to access comprises the step of  
5 examining a request from said client to the server, to determine if the request contains a reference to  
6 the version of the server-hosted application that said client is allowed to access.

7 47. (Original) The method of Claim 46, wherein if the request does not include the reference  
8 to the version of the server-hosted application that said client is allowed to access, the step of  
9 automatically identifying the version of the server-hosted application that said client is allowed to  
10 access comprises the step of consulting the register to determine the version of the server-hosted  
11 application that said client is allowed to access.

12 48. (Original) The method of Claim 46, wherein if the request does not include any reference  
13 to the version of the server-hosted application that said client is allowed to access, further comprising  
14 the step of incorporating a reference to the version of the server-hosted application that said client is  
15 allowed to access in a cookie returned to said client from the server, such that when said client makes  
16 a future request, the register does not need to be consulted to determine the version of the  
17 server-hosted application.

18 49. (Original) The method of Claim 36, wherein when said client is not identified in the  
19 register, further comprising the steps of associating said client with a default version of the  
20 server-hosted application, and updating the register to identify said client and to indicate that said  
21 client is allowed to access the default version.

22 50. (Original) The method of Claim 49, wherein said default version is the first version of  
23 the server-hosted application.

24 51. (Original) The method of Claim 49, wherein said default version is the second version of  
25 the server-hosted application.

26 52. (Original) The method of Claim 49, further comprising the step of incorporating a  
27 reference to the default version of the server-hosted application that said client is allowed to access in  
28 a cookie returned to said client from the server, such that when said client makes a future request, the  
29  
30

1 register does not need to be consulted to determine the version of the server-hosted application that  
2 said client is allowed to access.

3 53. (Original) The method of Claim 36, wherein when a request from said client to access  
4 the server-hosted application includes a reference to the version of the server-hosted application that  
5 said client is allowed to access, but the reference fails to indicate a version of the server-hosted  
6 application with which data of said client is associated, the step of automatically identifying the  
7 version comprises the step of consulting the register to determine the version of the server-hosted  
8 application that said client is allowed to access.

9 54. (Original) The method of Claim 53, further comprising the steps of:

10 (a) changing the reference in the request to correspond to the version of the  
11 server-hosted application that said client is allowed to access that is defined in the register; and

12 (b) returning the changed reference to said client, such that when said client makes  
13 a future request, said future request properly references the version of the server-hosted application  
14 that said client is allowed to access.

15 55. (Original) The method of Claim 36, further comprising the steps of selecting a second  
16 group of clients from those clients identified in the register that are allowed to access the first version  
17 of the server-hosted application, and changing the register so that the register indicates each client  
18 included in the second group of clients is associated with and allowed to access the second version of  
19 the server-hosted application, but not the first version of the server-hosted application.

20 56. (Original) The method of Claim 55, wherein when all clients identified in the register are  
21 associated with and only allowed access to the second version of the server-hosted application,  
22 further comprising the step of making the first version of the server-hosted application unavailable to  
23 the network.

24 57. (Original) A machine-readable medium having machine instructions for performing the  
25 steps of Claim 36.

26 58. (Original) A system for enabling a provider of a server-hosted application to migrate at  
27 least some clients from a first version of the server-hosted application to a second version of the  
28 server-hosted application, such that at least one version of the server-hosted application remains  
29 accessible to at least some of the clients during the migration, comprising:  
30

1 (a) a plurality of computing devices, each computing device comprising a different  
2 client; and

3 (b) a server having a processor and a memory in communication with the  
4 processor, said memory storing machine instructions that when executed by the processor, cause the  
5 processor to:

6 (i) maintain a register that identifies each client having access to the  
7 server-hosted application, for each client having access to the server-hosted application, associates  
8 the client with the first version of the server-hosted application;

9 (ii) enable the second version of the server-hosted application to be made  
10 available to the clients;

11 (iii) enable a first group of clients to be selected from those clients  
12 identified in the register, for migration to the second version of the server-hosted application;

13 (iv) change the register so that the register indicates that each client  
14 included in the first group of clients is associated with and allowed to access the second version of  
15 the server-hosted application, but not the first version of the server-hosted application;

16 (v) each time that any client attempts to access the server-hosted  
17 application, automatically identify the version of the server-hosted application that said client is  
18 allowed to access; and

19 (vi) direct said client to the version of the server-hosted application that said  
20 client is allowed to access.